

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 February 2005 (10.02.2005)

PCT

(10) International Publication Number
WO 2005/012277 A1

(51) International Patent Classification⁷: **C07D 305/14**,
C08G 65/02, C08F 261/06, 283/66, 2/18, C08J 3/24,
C08F 16/12

(21) International Application Number:
PCT/CA2004/001461

(22) International Filing Date: 4 August 2004 (04.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/491,969 4 August 2003 (04.08.2003) US

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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: **NEW POLYETHER BASED MONOMERS AND HIGHLY CROSS-LINKED AMPHIPHILE RESINS**

(57) Abstract: The present invention relates to a cross-linked polyether which is obtained by polymerization of at least one monomer selected from the group consisting of (a) (α -X-methyl) vinyl-EWG, (α -X-methyl) vinyl-ERG, or (α -X-methyl) vinyl-aryl, where X is oxygen, sulfur, PEG, PPG or poly (THF); (b) a monomer which is polymerizable with a PEG, PPG or poly (THF) cross-linker having at least one (α -X-methyl) vinyl-EWG, (α -X-methyl) vinyl-ERG or (α -X-methyl) vinyl-aryl, where X is oxygen, sulfur, PEG, PPG, or poly (THF); (c) a PEG, PPG, or poly (THF) cross-linker having at least an acrylamide or a methacrylamide end group; and (d) mixtures thereof. Various monomers, resins and methods for preparing such cross-linked polyethers are also disclosed.

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